

NTD

human M-G- KERREY NIKG-- ROC AGPCKSKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCKKKKK-TK APPS- - K KERKPITKEE KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - N- - - - RYHITKE - - - - KAKETVAGG CKISSSG- 148

Rhesus monkey M-G- KERREY NIKG-- ROC AGPCKSKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCKKKKK-TK APPS- - K KERKPITKEE KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - EIAOG CKISSSG- 148

white-tufted-eared marmoset M-G- KERREY NIKG-- ROC AGPCKSKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCKKKKK-TK APPS- - Q KERKPITKEE KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - EIAAOG CKISSSG- 147

gray mouse lemur M-G- KERREY NIKG-- ROC AGPCKSKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCKKKKK-TK APPS- - K KERKPITKEE SKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE - - - - KAE- - - - EIAOG PERISSSG- 148

Sunda flying lemur M-G- KERREY NIKG-- ROC AYPOSSKAP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCKKKKK-PR APPS- - K KERKPITKEE SKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - EIAAOG CKISSSG- 148

Arctic ground squirrel M-G- KERREY NIKG-- ROC AGPCKSKGP- - PAP- P- ATR LELEDKDTIK GIDASNAIIL PCRKKKT-TK APPS- - K KERKPITKEE KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MKLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - EIAAOG CKISSSG- 148

rabbit M-G- KERREY NIKG-- ROC AAPCPSKSA- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCRKKKT-TK APPS- - K KERKPITKEE SKLQKLEQ KERKSRAEM IOKISEOAS EAE-MKLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - EAAAOG CKISSSG- 146

house mouse M-G- KERREY NIKG-- ROC ADPCKAAG- - PEA- P- PRO LELEDKDTIK GIDESNVIIL PCRKKKK-TK APPS- - K KERKPITKEE KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MSLLTT TAKGTG- - - - - RYHITKE - - - - KPS- - - - QPAAG CKISSSG- 148

domestic cat M-G- KERREY NIKG-- ROC ATPCKSKGP- - PEP- P- PR LELEDKDTIK GIDASNAIIL PCRKKKK-PR APPS- - K KERKPITKEE KKLQKLEQ KERKSRAEM IOKISEOAS EAE-PRLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - EIAAOG CKISSSG- 147

goat M-G- KERREY NIKG-- ROC AACSTSCKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCRKKKK-TK APPS- - K KERKPITKEE SKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - STAAG PERISSSG- 148

cattle M-G- KERREY NIKG-- ROC TAPOCTSCKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCRKKKK-TK APPS- - K KERKPITKEE SKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - DIAAOG SEKISSSG- 148

pig M-G- KERREY NIKG-- ROC AAPCPSKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCRKKKK-SR APPS- - K KERKPITKEE SKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE TIGRKPS- - - - EIAAOG CKISSSG- 151

Yangtze finless porpoise M-G- KERREY NIKG-- ROC AAPCPSKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCRKKKK-TK APPS- - K KERKPITKEE KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - SIAAOG LEKISSSG- 148

African savanna elephant M-G- KERREY NIKG-- ROC AGPCKSKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCRKKKK-TK APPS- - K KERKPITKEE KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MKLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - EIAOG PEKINSIG- 148

Florida manatee M-G- KERREY NIKG-- ROC AGPCKSKGP- - PEP- P- PRO LELEDKDTIK GIDASNAIIL PCRKKKKTK APPS- - K KERKPITKEE SKLQKLEQ KERKSRAEM IOKISEOAS EAE-MKLLTT TSKGTG- - - - - RYHITKE - - - - KPS- - - - EIAOG PEKINSIG- 149

koala M-G- KERREY NIKG-- ROC - PR- PGFEP- - EEP- - YOLO LEEDRORIWK GIDESNVIIL PCRKKKK-X AAPTS- - K KERKPITKEE SKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE - - - - KAE- - - - ETGPA LEKISSSG- 146

gray short-tailed opossum M-G- KERREY NIKG-- ROC OPP- PGFEP- - KRP- CYO LELEDRDLIK GIDESNVIIL PCRKKKK-X PIPPTT- - K KERKPITKEE KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MRLLTT TSKGTG- - - - - RYHITKE - - - - KTE- - - - ETGPA LEKISSSG- 148

American alligator M-G- KERREY NWKARRPG- P GGGPPPSD- - PDPAPEPK LEIGDETLIK GIDESNVIIL PAKRKK-KK ASEST- - K KERKPISKRQ KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MKLLTT TSKGTG- - - - - RYHITKE T- - - - E- - - - EPGACI PGKISSSG- 152

western painted turtle M-G- KERREY NWKARIIGSPF GGLOP- - PAPEPK LEIGDEAKIK GIDESNVIIL PAKRKT-KK FACST- - Q KERKPISKRQ KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MKLLTT TSKGTG- - - - - RYHITKE T- - - - Q- - - - EAGTCI PEKISSSG- 147

chicken M-G- KERREY NWKARACCGA EOPPPGA- - - - PACO LEIGGAPRK GIDESNVIIL PAKRKK-KK ARNA- - K KERKPISKRQ KKLQKLEQ KERKSRAEM IOKISEOAS EAE-MKLLTT TSKGTG- - - - - RYHITKE T- - - - G- - - - EPGACI PEKISSSG- 149

tropical clawed frog M-G- KMKRKH NWKAKO- - - OIKSTEEL- - ASGQOHEQ LEIGSCKEIK GIDESNVIIL PCKSKR-KK I-NES- - G PTKKPISKRQ KKLQKLEQ KERKSRAEM IOKISEOAS EAE-ENLLTT TSKGTG- - - - - RYHITKE A- - - - E- - - - EASSE CKISSSG- 147

whale shark M-G- KERREY NWKA- - ROC KTKNSSE- - OSCNEVKRE LEIGEKTIK GIDESNVIIL PAKRKR-KQ INESA- - K KERKPISKRQ SKLQKLEQ KERKSRAEM IOKISEOAS EAE-MKLLTT TSKGTG- - - - - RYHITKE - - S- - - - EOBANS ECRISSSG- 148

zebrafish M-G- KERREY NWKG- - ROC ST- SICOTA- - AABRONTQ VETODGAVLK GIDDDCNATL PATKTKKOK- - VESP- - Y TKKKAUTKQ SKLQKLEQ KERKSRAEM IOKISEOAS EAE-EKLLTT TAKGTG- - - - - RYHITKE SYNNGO- - - - GGSS TUKISSSG- 149

Japanese medaka M-G- KERREY NWKG- - ROC SE- PEKVE- - - DGTQTYI VETEDGGRK GIDESNVIIL PASKAKNNKN SSQK- - Y SKERKPISKRQ KKLQKLEQ KERKSRAEM IOKISEOAS EAE-EKLLTT TSKGTG- - - - - RYHITKE SSDEIKA- - - - GEIA E-KYSSSG- 148

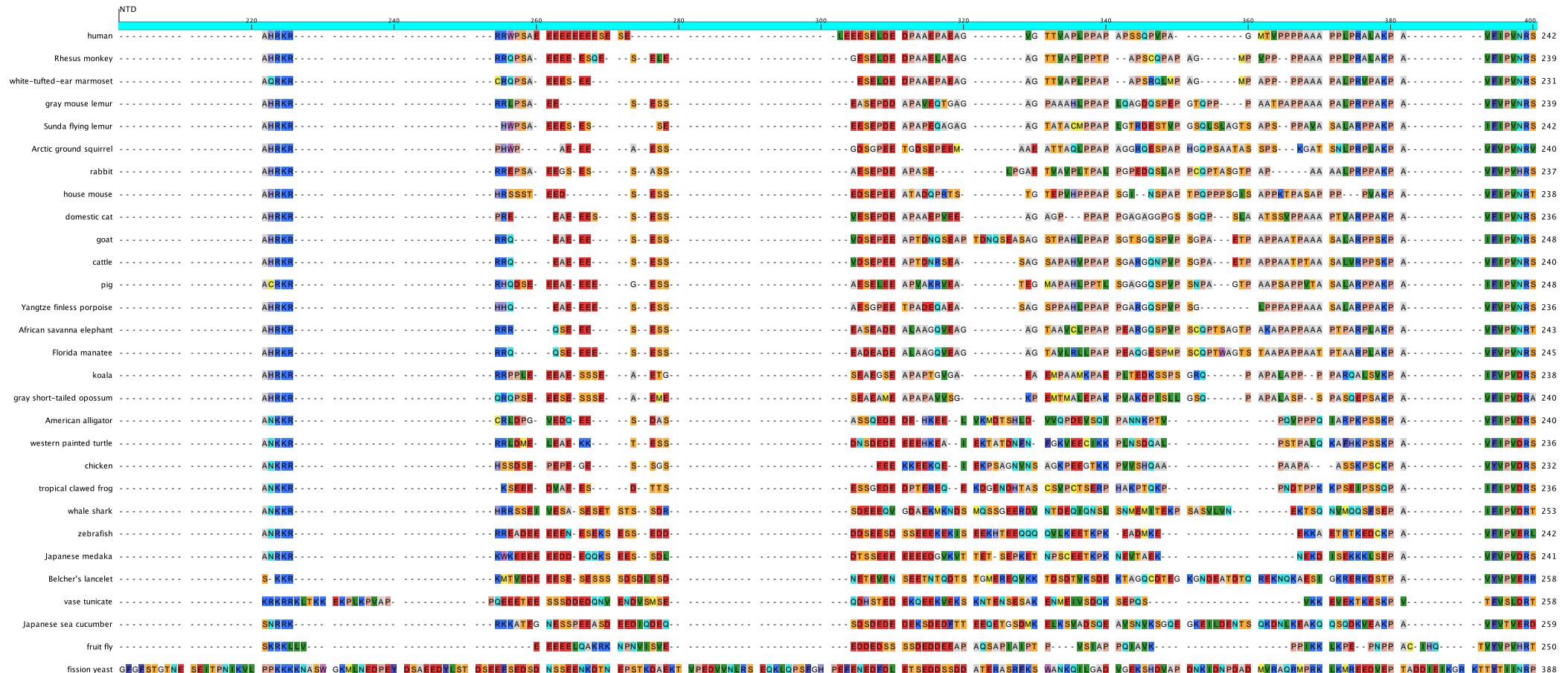
Belcher's lancelet M-G- KERREY NWKA- - ROC ADKFLONTE- - TEG- - - IO LEEDKREYS GIDACNATL PSOK- RYKVN TEKSK- - Q KERKPISKRQ KKLQKLEQ KERKSRAEM IOKISEOAS EAE-EKLLTT TOTI- - - - RYHITKE TEPHPPEP- - - TSATG SCKINSIG- 144

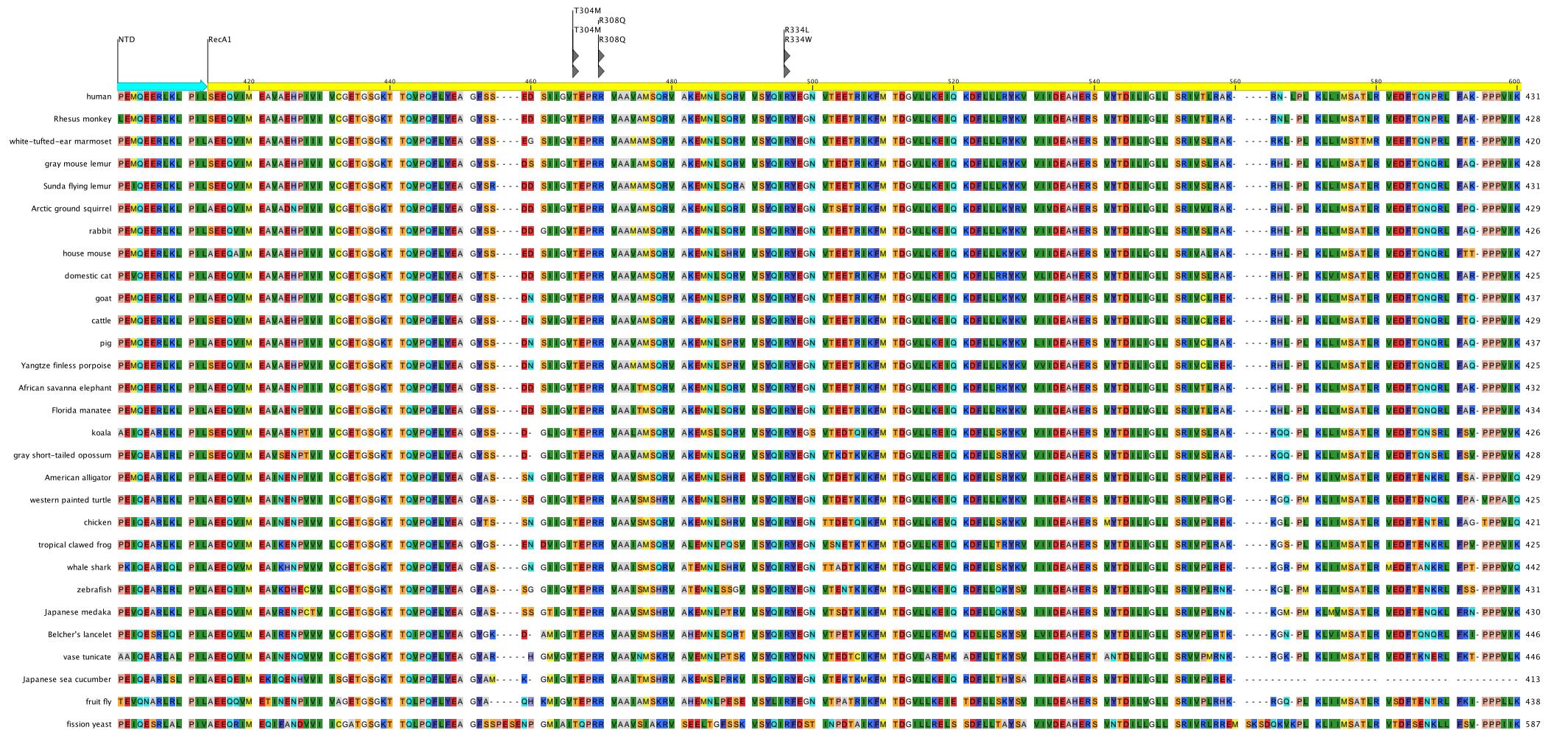
vase tunicate M-G- KERREY - - - AAGTOKAR- - PEKOPTI- - - YKDKTIEK GIDESNVIIL PAKRKKTH- - EID- - K KERKPISKRQ SKKKEKTIQ KERKSRAEM IOKISEOAS SSE- IATIOS TAKGTG- - - - RYHITKE PI- - - PSLIK DATASOENP NASVNSTAG- 149

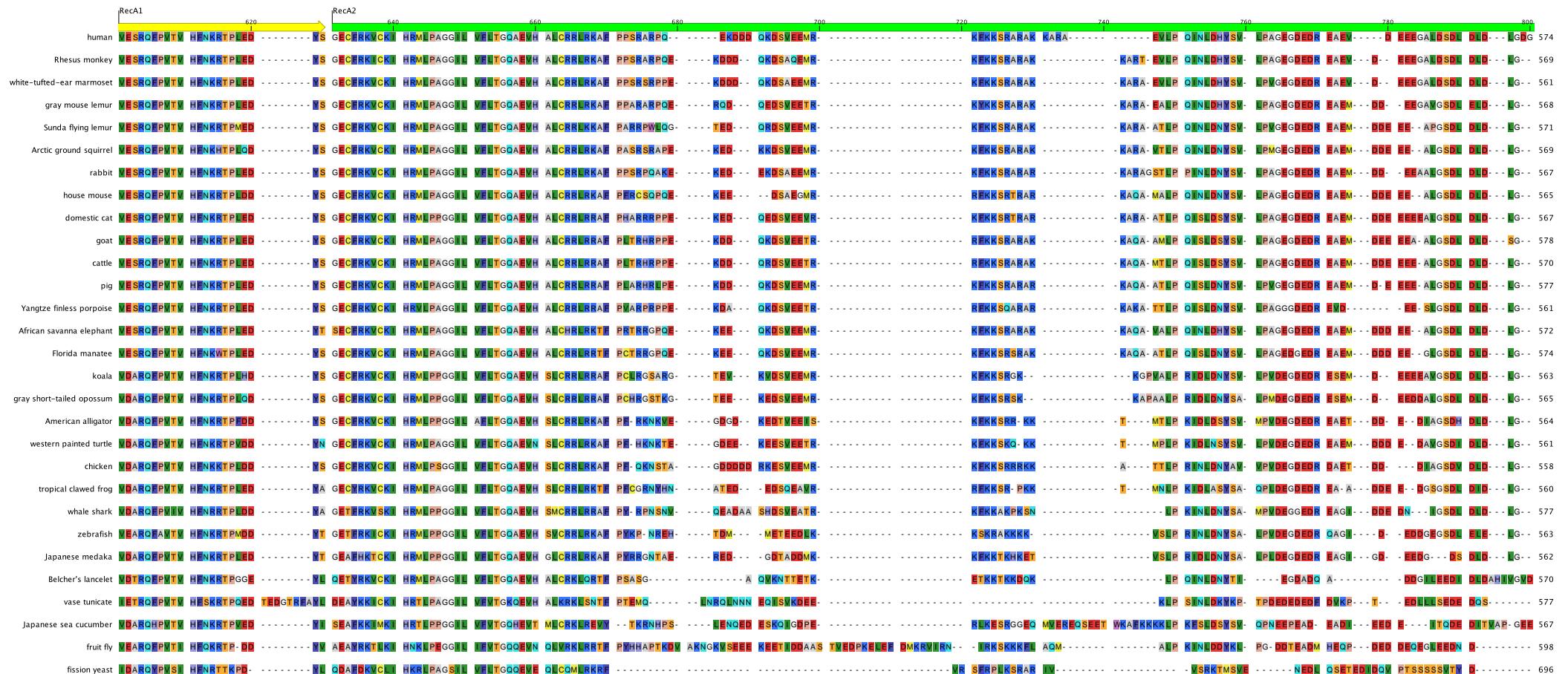
Japanese sea cucumber MAG- KERREY NSKAROGEK A- - - DDC- - - SGGACNIT IEEAKRPTI TIGGSNLIIK PSOKR- ITR KERIP- - Q NAPKKITRQ SKLQKLEQ KERKSRAEM IOKISEOAS NDE- IATIOS AARMGK- - - - RYHITKE - - - - ROK ELYSSIG- 143

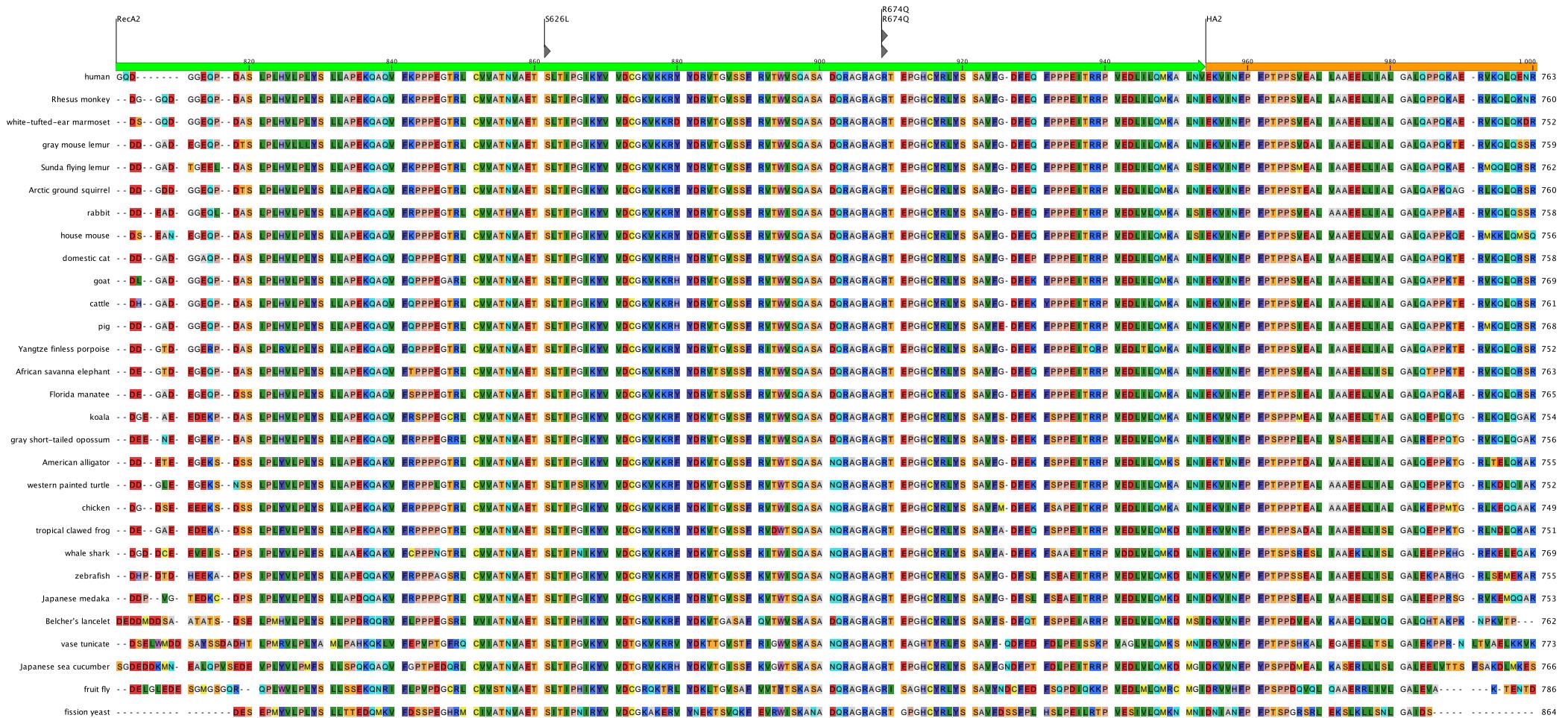
fruit fly M-G- - KERREY NAKA- - - S ONPOTIVDN- - SAVKHLQD YDAAGGNOY GIDEEANAIIL PSE- - KRAK TIKSK- - - Y CHIKIISKRQ SKLQKLEQ KERKSRAEM IOKISEOAS EEE- EQQTS ISQOQT- - - - GIK- - - - RYHITKE TAKKKERQA DIAEASSA GIRENAIIG- 158

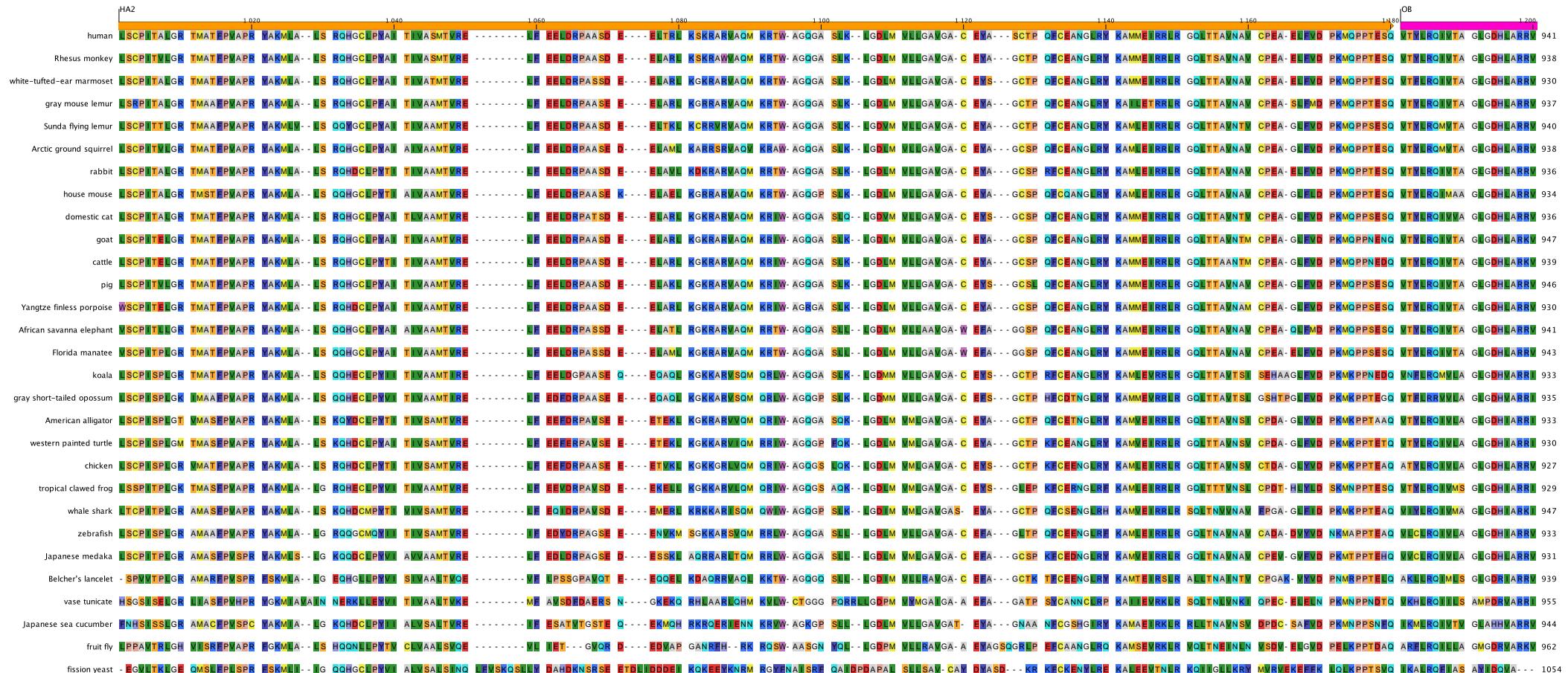
fission yeast M-G- KERREY NWKGOSGIC KMNIKSKRRI HRSYRCESS SEYHANPERD NOISNAEIII DIPKPEROKR KOEIKQDIEK ENEGISSKK KKLQKLEQ KERKSRAEM IOKISEOAS TS- - - IIS S-KNICKOAT AKERKIKSI EENIGPISO ADRSYKTKV Y- - - ITTI TKSSTATAA PEKISTRSG- 168

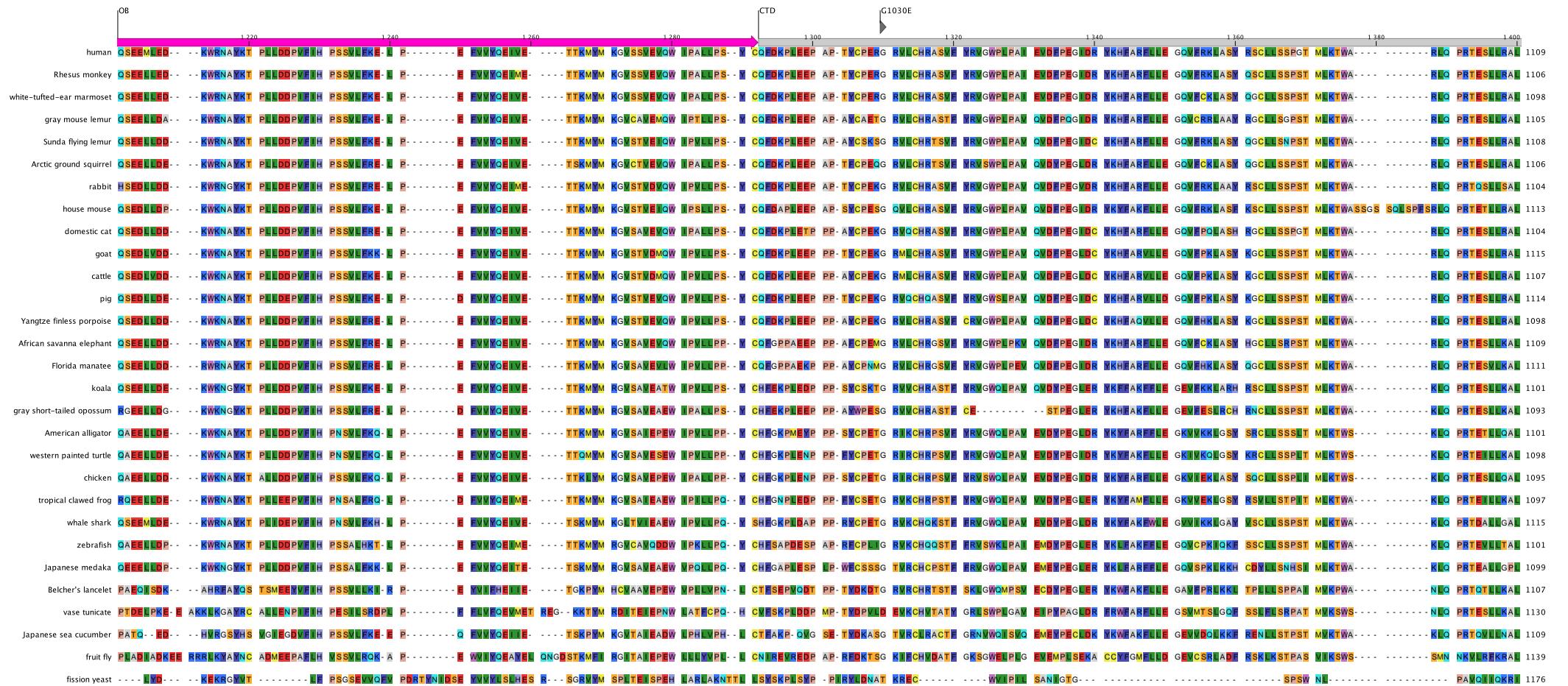












	CTD	
	1420	1440
human	YAEKADCREA IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HPDIEKAWP PTIISH----- 1157
Rhesus monkey	YAEKADCREA IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HPDIEKAWP PTIISH----- 1154
white-tufted-eared marmoset	YAEKADCREA IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HPNIEKAWP PTIISH----- 1146
gray mouse lemur	AAERADCREA IIAAWTRNPK Y- HAAEYCEW -----	IPOAM----- HPDIEKAWP PTIISH----- 1153
Sunda flying lemur	YAEKADCREA IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HADIEKAWP PTS-C----- 1155
Arctic ground squirrel	YAEKADCREA IIAAWKKRSPK Y- HAAEYCEW -----	IPOAM----- HASIEKAWP PTSR----- 1154
rabbit	YAEKADCREA IIAAWKRSPK Y- HAAEYCEW -----	IPOAM----- HADIEKWP PASDF----- 1152
house mouse	YAHKADSSSS IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HSDIEKWP PTIIS----- 1161
domestic cat	AAERADCREA IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HADIEKAWP PACDF----- 1152
goat	YAKKANCREA IIAAWSKNPK Y- HAAEYCEW -----	IPOAM----- HADIEKAWP PTIISH----- 1163
cattle	YAKKANCREA IIAAWSKNPK Y- HAAEYCEW -----	IPOAM----- HADIEKAWP PTIISH----- 1155
pig	YAEKADCRD IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HADIEKWP PTIISH----- 1162
Yangtze finless porpoise	YAEKADCREA IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HADIEKAWP PTSAC----- 1146
African savanna elephant	YAEKADCREA IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HPDIEKAWP PTSDF----- 1157
Florida manatee	YAEKADCREA IIAAWKKNPK Y- HAAEYCEW -----	IPOAM----- HPDIEKAWP PTSR----- 1159
koala	YSKKADCREA IIAAWKCEPK Y- HAAEYCEW -----	IPOA----- HNEISLWPE PCXP----- 1148
gray short-tailed opossum	YSRKADCRNA ISEAWKCEPT Y- HAAEYCEW -----	IPOA----- HSEISLWPE PSRP----- 1140
American alligator	YSENADCREA IIAAWKKNPK Y- HAAEYCEW -----	IPEYM----- HDEIAKNWP PTIIC----- 1148
western painted turtle	YSENADSSH AIAAWKKNPK Y- HAAEYCEW -----	IPEYM----- HODIAKWP PTIIL----- 1145
chicken	YSESCDNEA IIAAWKKNPK Y- HAAEYCEW -----	IPEYM----- HEDIAKWP PTSA----- 1142
tropical clawed frog	YSENADCSA IIAAWKKNPK Y- HAAEYCEW -----	TPEAI----- HEDIAKAWP PIGOVS----- 1147
whale shark	YSENADNSA IIAAWKKNSH Y- HAAEYCEW -----	IPEAM----- HADISQHWPE PTIOL----- 1162
zebrafish	YSEKAENDTS IIAAWKKNPK Y- HAAEYCEW -----	IPESI----- HEENSKWPE PIGGADPS----- 1152
Japanese medaka	YSKKADCSA IISLWKKDK Y- HAAEYCEW -----	IPISY----- HCEWANTWP PA----- 1144
Belcher's lancelet	YSEGADNKS IQQAQKNNK Y- HAAEYCEW -----	IPOS----- HDTITEMWP PI----- 1152
vase tunicate	AGRGDSKKK ITEWKWNP Y- HAAEYCEW -----	IAPGS----- HQHTISSWP IS----- 1175
Japanese sea cucumber	YEOGICCSREA IMAAWKKNPK CRRVTTIS- TECTORISD EKTHERSILN PTI-----	----- 1161
fruit fly	YTKOJHNQEA IISDWNSEPH Y- HAAEYCEW -----	IYCA----- HSEITPWP PDEKEPQRQ 1192
fission yeast	NGRWINC-----	----- 1183